

# What Every PSAP Needs to Know About VoIP E9-1-1:

## The Impact of FCC Report and Order 05-116

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This pamphlet is provided as a service to PSAPs by TeleCommunication Systems (TCS), to help you understand the changes that VoIP E9-1-1 will bring. It describes what VoIP telephone service is and how VoIP E9-1-1 will affect you in the near and long-term future. It also provides information about FCC report and order 05-116, mandating VoIP E9-1-1 service.

This document represents our current understanding of NENA VoIP standards, VoIP E9-1-1 technology, and the import of the FCC order.

Where we express an opinion or make a recommendation, we clearly label it as such. Our intent is to provide useful information rather than to press a particular point of view.

If you have questions about VoIP E9-1-1, please contact us at (206) 792-2162 or [voip911@telecomsys.com](mailto:voip911@telecomsys.com).



## 1. What Is VoIP?

Voice over Internet Protocol (VoIP) is a technology that allows people to place local and long-distance phone calls over the Internet. To make VoIP calls, a person must have a computer, Internet service (secured through an Internet service provider), and VoIP telephone service (secured through a VoIP provider).

VoIP service is expected to grow rapidly in the next few years. A main attraction of VoIP service to the consumer is its low price. A second attraction is that it allows the consumer to take his or her phone from one location to another. A consumer can plug in his or her VoIP phone wherever Internet access is available. All calls to the VoIP phone number are routed directly to that phone, regardless of where the phone is located.

### 1.1. FCC Mandates VoIP E9-1-1 Service

After some highly publicized disasters related to the failure of VoIP providers to deliver 9-1-1 calls to the correct PSAPs, the FCC has directed VoIP carriers to provide enhanced 9-1-1 (E9-1-1) service to all of their customers. On May, 19, 2005, the FCC released Report and Order 05-116, which created rules related to VoIP E9-1-1 service and established a deadline for implementation.

The FCC order states that all VoIP carriers are obligated to deploy E9-1-1 service to all PSAPs within 120 days of the effective date of the order. The order is not yet finalized, but it is expected that the deployment deadline will fall in the fourth quarter of 2005.

### 1.2. PSAP Requests Not Required

Unlike FCC Report and Order 94-102, which established the requirement for wireless E9-1-1 service, FCC Order 05-116 for VoIP E9-1-1 service does not require PSAPs to request service from VoIP vendors. On the contrary, PSAPs must refuse VoIP service if they do not wish to receive VoIP calls. If a PSAP does not refuse to receive such calls, when a VoIP subscriber whose registered address is within the PSAP's service area places an emergency call, the call will be routed to the PSAP.

### 1.3. Impact on PSAPs

The FCC order requires VoIP carriers to deliver E9-1-1 service using the existing E9-1-1 infrastructure. Thus, in most cases no technological changes or upgrades will be required of PSAPs to receive VoIP E9-1-1 calls. However, some PSAPs may have reporting or other special functionality that may need adjustment.

The manner in which call information is displayed at the PSAP will vary, depending on the type of E9-1-1 solution chosen by the caller's VoIP provider. These variations are discussed in Section 2.

Funding for VoIP E9-1-1 is a serious question that is not addressed in the FCC Report and Order. Issues related to funding are discussed in detail in Section 3.

## FAQ

*Q: What happens if a PSAP refuses to accept VoIP E9-1-1 calls?*

A: The FCC has assumed that all PSAPs want to receive VoIP E9-1-1 calls. No provision has been made for a PSAP to refuse such calls. TCS will recommend to its VoIP provider customers that they honor any PSAP request not to deliver service. Such requests will most likely be documented and reported to the FCC.

If a PSAP declines to accept E9-1-1 VoIP calls, these calls will not be routed to the PSAP's 10-digit administration lines or to any other dedicated PSAP lines. Depending on the VoIP provider, these calls may be routed to a fully certified default PSAP. The default PSAP will determine the nature of the emergency and will make every effort to contact the appropriate local responders directly, over the public switched telephone network (PSTN), without troubling the local PSAP.

## 1.4. Impact on VoIP Providers

The FCC Report and Order mandates that interconnected VoIP providers achieve the following:

- Provide E9-1-1 services as a standard feature of the service rather than as an optional enhancement.
- Provide E9-1-1 services from wherever the customer is using the service, whether at home or away from home.
- Deliver all 9-1-1 calls to the customer's local emergency operator.
- Provide emergency operators with the callback number and location information for the provider's VoIP customers who dial 9-1-1. Although the customer is responsible for entering his or her location information into the VoIP provider's database, the VoIP provider must give the customer a means of entering the information and updating it, whether he or she is at home or away from home. (Usually, the customer can use a PC to enter this information on a Web site.)

The order gives a VoIP provider the flexibility to adopt the technological solution of its choice.

- By the effective date, interconnected VoIP providers must inform their customers, both new and existing, of the capabilities and limitations of the provider's E9-1-1 service.

## 1.5. Impact on LECs

The incumbent LECs are required to provide access to their E9-1-1 networks to any requesting telecommunications carrier. They must continue to provide access to trunks, selective routers, and E9-1-1 databases to competing carriers. The Commission will closely monitor LEC compliance with this obligation.



## 2. Technology

This section provides an overview of the NENA standards for VoIP and describes the current VoIP E9-1-1 solutions designed around those standards. It includes a recommendation for which solution a VoIP provider should adapt.

### 2.1. The Challenge

The original wireline 9-1-1 system was designed on the premise that subscribers would always be stationary. The design therefore tied a subscriber's directory number to the subscriber's physical location. The subscriber's location is determined from their directory number listing, and the directory number is used to route the call to the most appropriate PSAP.

VoIP providers face significant challenges meeting the requirement to accommodate VoIP to the existing E9-1-1 system. As with wireless E9-1-1, the subscriber's 10-digit phone number has little or no bearing on his or her location. The subscriber's location can change from call to call and in the future, will potentially be changing during a single call.

Adding to the technical challenges is the fact that although NENA is not expected to publish the final standards for a few months, the FCC order still holds VoIP providers responsible for implementing a solution that complies with the order.

### 2.2. VoIP Use Cases

VoIP-initiated calls can be divided into three types.

**Table 1: VoIP Use Cases**

Use Case	Description	Type of User
Static	The location of the VoIP phone does not change.	A subscriber who uses VoIP service as a replacement for a home or office landline and does not change location.
Nomadic	The location of the VoIP phone can change from call to call but does not change during a call.	A subscriber who signs on from various fixed locations, using a laptop or other Internet device.
Mobile	The location of the VoIP phone can change during a call.	A subscriber who connects to the Internet by means of WiFi or another technology that allows the subscriber to travel during a call.

### 2.3. Industry Standards for VoIP E9-1-1

NENA initiated an effort in 2003 to define standards-based solutions for VoIP E9-1-1. That effort is divided into three phases:

**i1:** A standard that describes the existing capabilities of VoIP providers to route calls to a PSAP. Two i1 solutions exist. One solution is for 9-1-1 calls to be routed using a PSAP's 10-digit 24 x 7 emergency numbers. These numbers are similar to the ones used by telematics or security companies to relay 9-1-1 calls to PSAPs today. This i1 solution (which is called "i1 nonenhanced" in this document) supports voice only. No ALI

location information or other data regarding a caller is delivered to the PSAP. This solution does not meet the requirements of the FCC order.

The other i1 solution (which is called “i1 wireline provisioned” in this document) requires VoIP subscriber telephone numbers to be listed in the landline ALIs, like landline numbers. This solution does meet the requirements of the FCC order.

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<b>Note</b>	NENA documentation is unclear about whether the wireline provisioned solution is covered by the i1 standard.
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**i2:** A second interim standard that supports the delivery of VoIP calls through the existing selective-router-based emergency services network. Calls are switched from the Internet to the emergency services network by an emergency services gateway. In this standard, ALI data is delivered to the PSAP through the existing ALI interconnection network.

An i2 architecture would be similar to the architecture currently in place for wireless E9-1-1. It is designed to require no changes by PSAPs.

The i2 standard addresses the needs of static and nomadic users but not mobile users. It meets the requirements of the FCC order.

**i3:** A third interim standard that supports the delivery of location data and voice to Internet-enabled PSAPs. In this architecture, there would be no need for time division multiplex (TDM) signaling, because voice and data would travel over Internet connections from end to end. There would also be no need for ALI interconnections, because the location information would be delivered in the signal path of each call.

Because the i3 solution incorporates Internet signaling end to end, it requires that PSAPs have the ability to use the Internet for call signaling and media (that is, voice) delivery. It is therefore not a feasible candidate to meet the short-term FCC requirements.

## 2.4. Status of the i2 and i3 Standards

NENA's i2 standard Technical Information Document (TID) was developed to describe the requirements and the alternatives for a viable near-term solution for E9-1-1 VoIP. It is currently undergoing official review within NENA. Work has been proposed to NENA to extend the i2 standard to include additional features and use cases.

NENA has begun work on the i3 standard, which the NENA Long Term Definition Working Group (LTD-WG) is in the process of defining.

The i3 requirements and specifications are in process in the LTD-WG and will eventually become a published standard that solutions will be built to address. However, considerable time may pass before PSAPs themselves are ready to transition from the traditional TDM world to the world of Internet communications.

## 2.5. Interim Solutions Implemented To Date

It is not yet possible to implement a true standards-based i2 solution, for the following reasons:

- The NENA standard i2 solution requires MSAG validity of civic street addresses. Because MSAG data is unavailable to third-party providers in the 9-1-1 market, current solutions can at best deliver

valid postal addresses. They cannot deliver addresses that are necessarily MSAG valid.

- Proposals have been submitted to NENA for constructing and assigning management responsibility for an emergency services query key (ESQK) number schema, but no proposal has been adopted. (An ESQK must not be dialable over the PSTN.) Current solutions call for ESQKs to be assigned in the same manner that emergency services routing keys (ESRKs) are currently assigned.
- Proposals have been submitted to NENA for an emergency services routing number (ESRN) numbering schema but no proposal has been adopted.

In the meantime, several interim solutions are available to VoIP providers, as described in Sections 2.5.1–2.5.3.

### 2.5.1. i1 Nonenhanced Solution

Some VoIP providers have already begun to implement the nonenhanced, 10-digit NENA i1 solution.

**Limitations:** Although this solution can be useful as the fallback for an i2 solution, it falls short of the FCC requirements for the following reasons:

- It does not route calls through the existing emergency services network (no selective routing).
- It does not deliver location data with the call.
- It relies on a PSAP-authorized 24 x 7 emergency number, which not all PSAPs have.

Another significant limitation of this solution is that some PSAPs have declined to accept calls routed to them over 10-digit phone lines.

### 2.5.2. i1 Wireline-Provisioned Solution

In this solution, a static location record is provisioned for each VoIP subscriber in the appropriate ALI database. This solution takes advantage of the current system provided by ILECs, CLECs, and other entities for provisioning subscriber data in their wireline ALIs. This solution does not conform to NENA VoIP standards.

**Limitations:** This solution has the following limitations:

- If a VoIP subscriber moves his or her phone but does not update the static location record, the location displayed at the PSAP will be wrong.
- When a VoIP subscriber updates his or her location information, the change sometimes takes several business days to go into effect. The subscriber believes that the location has been updated although it actually has not.
- A VoIP subscriber can request a telephone number with an area code that is outside the service area of the selective router that serves his or her region. In such cases, the selective router is unable to complete calls to the PSAP. The option of using an area code from any part of the country is widely offered by VoIP providers and commonly used by VoIP subscribers.

### 2.5.3. i2 Solutions

Solutions are currently available that provide enhanced routing using selective routers and offer results similar to those that a true i2 solution would provide. When the NENA i2 standard is completed, these solutions will be able to meet it.

These solutions offer an integrated approach to VoIP E9-1-1. As in wireless E9-1-1 solutions, identifying information for a caller is forwarded to a positioning center, which provides location information and routing information for the call. The voice portion of the call is routed to the existing E9-1-1 selective router.

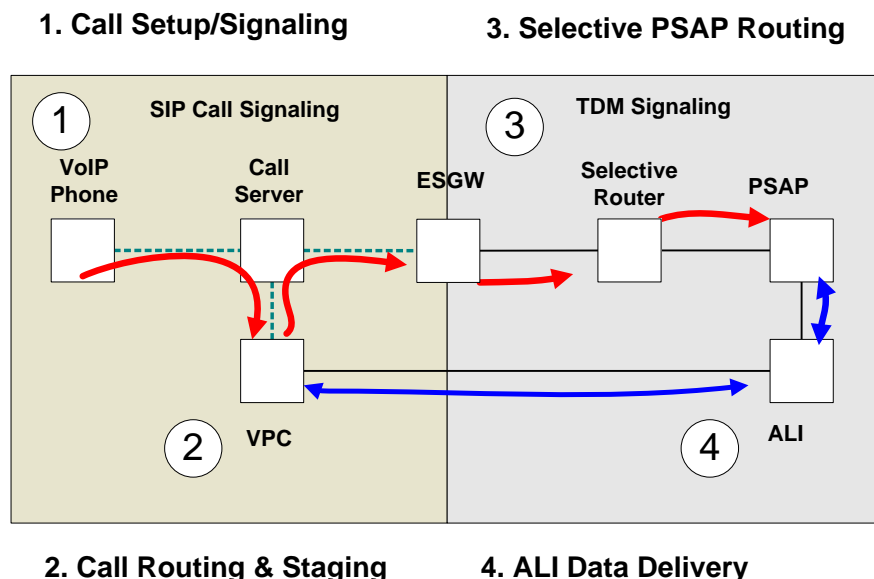
Connectivity between emergency service gateways and selective routers already exists in some cases but in many cases does not. Trunk implementation typically takes several weeks after contractual agreements are completed.

i2 solutions support static and nomadic subscribers and can be extended to support mobile subscribers.

**Limitations:** i2 solutions currently have the following limitations:

- They do not provide MSAG functionality, for the reasons listed at the beginning of Section 2.5.
- To deliver a VoIP class of service (COS), i2 solutions require a new implementation of the E2 interface between the VoIP provider and the ALI. This new implementation is called the V-E2 interface. The ALI provider is responsible for putting this modification into effect. Some VoIP providers may opt to retain existing PAM or NENA interfaces, which are already capable of delivering the VoIP COS.

**Figure 1: i2 Network Example**



**Note:** Some i2 network elements, including the LIS, the VDB, and the ERDB, are not shown in the figure.

## **2.6. Meeting FCC Order 05-116 in 120 Days: What's the Best Solution?**

In the opinion of TCS, the best approach to meeting the FCC order is to deploy one of the i2 solutions previously described and to mature the solution in step with the i2 standard as it is developed by NENA. The i2 approach has the following advantages:

- It supports immediate address updates to the ALI database as a subscriber changes his or her location.
- It supports nonresident numbering plan areas (NPAs) that would otherwise not be routable through the selective router. The use of nonresident NPAs is popular among VoIP subscribers. ("NPA" is synonymous with area code.)
- It uses existing ALI interconnections and requires no upgrades by PSAPs.

TCS recommends that VoIP providers, emergency service system providers, third-party providers, and PSAPs move forward quickly using an i2 solution.

## 3. Public Policy Issues

This section covers funding and indemnity.

### 3.1. Funding

Various judicial and administrative rulings have held that VoIP is an “information” service” and not a “telecommunications service.” In an effort to nurture this emerging technology, Congress has exempted “information services” from regulation and taxation. This has placed an obligation on PSAPs to provide service to users who pay no taxes to support the E9-1-1 service.

Most VoIP carriers recognize this problem, and they do make an effort to remit funds to local jurisdictions comparable to the taxes paid by wireline and wireless users. To combat the potential for corruption, however, many states prohibit the acceptance by local jurisdictions of “gifts” from any corporation or individual. Some VoIP vendors therefore remit the funds to escrow accounts, so that they can ultimately be turned over to the proper authorities and made available to PSAPs when legislation allows that to be done.

Fortunately, the issue of funding is well on its way to resolution. The most recent Congressional legislation notes that nothing in the legislation is intended to prohibit the collection of E9-1-1 taxes from VoIP providers. Additional legislation has been proposed in the US House and Senate that will authorize taxation for E9-1-1 purposes (Senate bill S.1063 and House bill H.R.2418).

PSAPs should work with NENA, Association of Public-Safety Communications (APCO), and local elected officials to introduce legislation at local levels to implement an E9-1-1 tax of VoIP vendors.

### 3.2. Indemnification

Senate bill S.1063 and House bill H.R.2418 provide the same indemnity to VoIP carriers that is provided to wireline and wireless carriers. These bills provide PSAPs with the same indemnity when handling VoIP emergency calls that the PSAPs are accorded when handling other emergency calls.

### 3.3. FAQ

Q: Are VoIP providers entitled to cost recovery?

A: Not at this time. State legislatures may authorize carrier cost recovery as they see fit. Obviously, no cost recovery is appropriate for VoIP providers who do not remit E9-1-1 taxes. Upon implementation of E9-1-1 taxes for these VoIP providers, however, it is likely that jurisdictions that provide cost recovery to wireless carriers will consider similar cost recovery for VoIP providers.

## 4. Implementation

Implementation of the i1 wireline-provisioned solution requires no PSAP participation and results in an ALI record that is indistinguishable from a landline ALI record.

Implementation of an i2 standard solution, which supports nomadic subscribers, does require PSAP participation. The first step for the VoIP provider is to contact the PSAP and advise the PSAP of the upcoming deployment. Due to the FCC obligation to deploy all PSAPs in the USA within 120 days of the effective date of the order, this initial contact may be by e-mail or U.S. mail rather than by phone.

The PSAP will be called upon to perform the following:

- Provide new MSAG and ESN records. These “shell records” will be similar to the MSAG records created for the wireless solution.
- Review PSAP boundaries with the VoIP provider or the VoIP provider’s agent.
- Determine how to handle error and default conditions. For example, for cases in which the system is unable to deliver the call according to the route established by the enhanced network, the PSAP will need to determine if it wants to provide a 10 digit “conditional” routing number for call delivery.

### 4.1. Contact by VoIP Providers

Many VoIP providers or their agents may be contacting PSAPs in advance of deployment to discuss and document the PSAPs’ decisions for reporting to the FCC. Not all VoIP carriers will do this, nor are they obligated to contact PSAPs in advance of deployment.

### 4.2. Timing

Because VoIP service providers are under strict FCC guidelines to deploy the service nationwide in 120 days, the deployment process will be accelerated.

### 4.3. Network Design – 911 Trunks and Translations

VoIP E9-1-1 calls will be routed over a PSAP’s existing E9-1-1 trunks. Therefore, no upgrades to hardware or trunks should be necessary if a PSAP is enhanced. The network connection point between the VoIP service provider and the LEC is the Emergency Services Network Entity (ESNE) selective router interface, which acts as the delivery point for the voice call.

The VoIP service provider is responsible for placing the order for the appropriate facility between their network and the ESNE in accordance with existing LEC and PSAP rules for approving such orders. Delays in approval or installation may threaten the 120-day deployment deadline and must be documented and reported to the FCC.

Provisioning and testing of the facility between the VoIP service provider’s network and the ESNE are also the VoIP service provider’s responsibility.

#### **4.4. Call-Routing Decisions**

With network-based solutions, routing of the VoIP E9-1-1 call is performed at the time of the call, based on the lat/lon of the caller's provisioned address in relationship to the PSAP boundary. PSAP boundary maps will be necessary to determine routing boundaries. A PSAP can provide new boundary maps for VoIP purposes, or it can simply use the existing boundary maps for wireless ESNs to define the PSAP boundary.

#### **4.5. VoIP E911 Routing numbers**

An E911 call routed using the NENA i2 standard will employ a pseudo automatic number identification (pANI) called an ESQK. The ESQK is similar in every way to the wireless ESRK and is used to:

- Route the call to the appropriate PSAP.
- Relay the ALI query to the appropriate third-party ALI database.

Unlike wireless, however, it is the intention of most VoIP providers to use ESQKs assigned not to the VoIP provider but to the VPC. This conserves the limited pool of ESRK/ESQKs. The VoIP provider's name will be identified in the ALI response.

#### **4.6. Provisioning ALI Records and Selective Routers**

Regardless of the technology implemented, provisioning of the LEC's selective router and the ALI with the information necessary to process subscriber calls is required as part of the deployment process. Provisioning the selective router and the ALI with the appropriate ESQK and VoIP "shell" record is performed by the VoIP provider or the third-party service provider.

The selective router is provisioned to recognize the ESQK and to route the call to the correct PSAP. The ALI is provisioned to recognize the ESQK and to steer the query to the correct VPC.

#### **4.7. Provisioning the VPC (i2 Solution)**

The i2 solution requires that the VPC also be provisioned with the ESQKs. This is done by the owner of the VPC and takes place during the deployment cycle. Each ESQK is associated with a specific PSAP.

#### **4.8. Activating and Testing E911 VoIP Service**

When the VoIP provider has all of the necessary network connections in place, it will place a short series of test calls to the PSAP prior to activating the service.

#### **4.9. Summary**

Despite the challenges, the PSAP's full participation in the planning process will ensure a VoIP E911 system in keeping with the spirit of the FCC mandate to extend enhanced 911 service to all callers in need.



## Appendix A. Glossary

This is a glossary of VoIP terms. Not all of the terms are used in this document.

Term	Definition
<b>ALI</b>	Automatic location identifier: A database that relates a specific telephone number (TN) to an address. This database accepts a PSAP query with a TN and responds with an address. In the case of an ESQK, the ALI database steers the query to the appropriate VPC and steers the response back to the PSAP. An ALI is typically owned by a LEC or a PSAP.
<b>CBN</b>	Callback number. The VoIP subscriber's telephone number.
<b>CRN</b>	Contingency routing number. A 10-digit, 7x24 PSAP emergency telephone number. Used for fallback routing if a call cannot be routed through the selective router to the PSAP.
<b>ESGW</b>	Emergency services gateway. A component, residing in the VoIP service provider's network, responsible for integrating the SIP network with the emergency services network and routing 9-1-1 calls to the appropriate selective router, based on the ESRN/ESQK it receives from the regional call server or the 9-1-1 call server.
<b>ESME</b>	Emergency services message entity. The ESME routes and processes the out-of-band messages related to emergency calls. This functionality is sometimes incorporated into the ALI database engine of a selective router.
<b>ESNE</b>	Emergency services network entity. The ESNE routes and processes the voice band portion of the emergency call. The ESNE is composed of selective routers, which are also known as routing, bridging and transfer switches.
<b>ESQK</b>	Emergency services query key. A digit string that uniquely identifies an ongoing emergency services call and is used to correlate the emergency services call with the associated data messages. It may also identify an emergency services zone and may be used to route the call through the network. Similar to an ESRK in wireless E9-1-1 networks.
<b>ESRN</b>	Emergency services routing number. A 10-digit number that specifies the selective router to be used to route a call.
<b>ESZ</b>	Emergency services zone. An ESZ is a range of addresses all of which are served by the same emergency-service responders.
<b>First responder</b>	Police, fire, or medical resource who is dispatched to handle 9-1-1 calls and deliver emergency services.
<b>Lat/lon</b>	Latitude and longitude. Latitude and longitude are a coordinate system by means of which the position or location of any place on the earth's surface can be described. Also known as x,y.
<b>LEC</b>	Local exchange carrier. The LEC is the wireline carrier for local calls.
<b>LIS</b>	Location information server. The component responsible for storing and providing access to the subscriber location information needed for E9-1-1 call processing (as defined by the NENA VoIP Location Working Group).
<b>LRO</b>	Last routing option. Routing information sent by the VPC that provides a "last chance" destination for a call, for example the CRN or a routing number associated with a national call center.
<b>Mobile subscriber</b>	A subscriber who uses a wireless device that can be in motion during the call. Wireless Fidelity (WiFi) VoIP is expected to eventually allow the end user to take a home-based telephony connection and roam within an interconnected wireless network, much as cellular technologies allow today.
<b>MSAG</b>	Master street address guide. An MSAG ledger is used by a municipality to assign a particular police, fire, or rescue agency to a given street and number range.
<b>NENA</b>	National Emergency Number Association. "NENA's mission is to foster technological advancement, availability, and implementation of the universal emergency telephone number system," that is, 9-1-1. NENA has designed a network interface for Phase I wireless E9-1-1.

<b>Term</b>	<b>Definition</b>
<b>Nomadic subscriber</b>	A subscriber who uses a device that is static during a call but does not have a static IP address assigned to it. Nomadic subscribers use Internet Service Provider (ISP) VoIP, which allows the end user to establish a telecommunications connection wherever he or she can obtain an Internet-based connection to her ISP provider.
<b>ORSS</b>	Operator routing support service. A national service in which a call taker answers and routes to a PSAP or first responder VoIP 9-1-1 calls that would otherwise be answered by a recorded message and would not be routed.
<b>PSAP</b>	Public safety answering point. A PSAP is the endpoint of an emergency services call. PSAPs are responsible for answering emergency services calls (as defined in TIA J-STD-036).
<b>PSTN</b>	Public switched telephone network. The international telephone system, based on copper wires carrying analog voice data.
<b>SIP</b>	Session Initiation Protocol. SIP is the IP-based protocol defined in IETF RFCs 3261 and 2543. SIP is one of two dominant messaging protocols used by the VoIP industry.
<b>Selective router</b>	The node in the emergency services network that performs enhanced call routing for 9-1-1 calls. Usually operated by the LEC.
<b>Static subscriber</b>	A subscriber who uses a device that is static during a call and has a static IP address assigned to it. Static subscribers use cable and DSL VoIP, often deployed in static configurations in which the end user stays at a fixed location and uses the standard North American Numbering Plan. Examples of this service include residential landline replacements using cable or DSL connections.
<b>V-E2</b>	An extension to the E2 ALI interface (specified in TIA J-STD-036). V-E2 is defined by the NENA VoIP Location Working Group. V-E2 provides support for a "VoIP" class-of-service indicator in the response message from the VPC to the ALI.
<b>VoIP</b>	Voice over Internet Protocol. VoIP is a system for providing telephone service over the Internet.
<b>VoIP provider</b>	A generic term to describe a company that provides VoIP call services. Some VoIP providers provide direct service to the consumer (VoIP service providers). Others provide backbone and PSTN access services (VoIP carriers). Still others provide ESGW (ESGW operators). Some VoIP providers provide more than one of these services.
<b>VPC</b>	VoIP positioning center. The application that determines the appropriate PSAP, based on the VoIP subscriber's position, returns associated routing instructions to the VoIP network, and provides the caller's location and the callback number to the PSAP through the ALI.

## Appendix B. Text of the FCC Press Release Regarding the Report and Order of May 19, 2005

FOR IMMEDIATE RELEASE: May 19, 2005

NEWS MEDIA CONTACT: Mark Wigfield, 202-418-0253

Email: [mark.wigfield@fcc.gov](mailto:mark.wigfield@fcc.gov)

### **Commission Requires Interconnected VoIP Providers to Provide Enhanced 9-1-1 Service**

#### ***Order Ensures VoIP Customers Have Access to Emergency Services***

Washington, D.C. – The Federal Communications Commission today took steps to protect consumers by requiring that certain providers of voice over Internet protocol (VoIP) phone service supply enhanced 9-1-1 (E9-1-1) emergency calling capabilities to their customers as a mandatory feature of the service.

The IP-enabled services marketplace is the latest new frontier of our nation's communications landscape, and the Commission is committed to allowing IP-enabled services to evolve without undue regulation. But E9-1-1 service is critical to our nation's ability to respond to a host of crises. The Commission hopes to minimize the likelihood of situations like recent incidents in which users of interconnected VoIP dialed 9-1-1 but were not able to reach emergency operators. Today's Order represents a balanced approach that takes into consideration the expectations of consumers, the need to strengthen Americans' ability to access public safety in times of crisis, and the needs of entities offering these innovative services.

The Order places obligations on interconnected VoIP service providers that are similar to traditional telephone providers in that they enable customers to receive calls from and terminate calls to the public switched telephone network (PSTN). It does not place obligations on other IP-based service providers, such as those that provide instant messaging or Internet gaming services, because although these services may contain a voice component, customers of these services cannot receive calls from and place calls to the PSTN. The Order adopted today reaches the following conclusions:

- Interconnected VoIP providers must deliver all 9-1-1 calls to the customer's local emergency operator. This must be a standard, rather than optional, feature of the service.
- Interconnected VoIP providers must provide emergency operators with the call back number and location information of their customers (i.e., E9-1-1) where the emergency operator is capable of receiving it. Although the customer must provide the location information, the VoIP provider must provide the customer a means of updating this information, whether he or she is at home or away from home.
- By the effective date, interconnected VoIP providers must inform their customers, both new and existing, of the E9-1-1 capabilities and limitations of their service.

- The incumbent LECs are required to provide access to their E9-1-1 networks to any requesting telecommunications carrier. They must continue to provide access to trunks, selective routers, and E9-1-1 databases to competing carriers. The Commission will closely monitor this obligation.

Interconnected VoIP providers must comply with these requirements, and submit to the Commission a letter detailing such compliance, no later than 120 days after the effective date of the Order.

Finally, the Commission stated its intention to adopt, in a future order, an advanced E9-1-1 solution that includes a method for determining the customer's location without the customer having to self report this information.

Action by the Commission May 19, 2005, by First Report and Order and Notice of Proposed Rulemaking (FCC 05-116). Chairman Martin, Commissioners Abernathy, Copps, and Adelstein, Chairman Martin, Commissioners Abernathy, Copps, and Adelstein issuing separate statements.

WC Docket Nos. 04-36, 05-196

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News about the Federal Communications Commission can also be found on the Commission's web site [www.fcc.gov](http://www.fcc.gov).

## Who Is TCS?

TeleCommunication Systems, Inc. (TCS) is a leading provider of mission-critical wireless data solutions to carriers, enterprise and government customers. We deployed the first commercial wireless E9-1-1 service in the United States on March 31, 1998. Since then, we've been providing E9-1-1 infrastructure and essential services to wireless carriers and PSAPs across the country. With the coming of VoIP, TCS has emerged as a leading provider of E9-1-1 services for VoIP vendors.